In the Claims:

Claims 1-12 (Cancelled)

Claim 13 (Currently Amended): A method of achieving a balance between response time and system latency in a communication system, said communication system including a receiver~~,~~ and a transmitter ~~and associated receive sample buffer and transmit sample buffer~~, wherein sample processing is divided into time slices within said communication system, said method comprising ~~of~~ the steps of:

employing a receive sample buffer and a transmit sample buffer~~s~~, each having a first buffer size L1 capable of quick response times;

employing a receive sample buffer and a transmit sample buffer~~s~~, each having a second buffer size L2 capable of accommodating system latency;

employing a switching device enabling said communication system to dynamically switch between ~~using~~ said transmit ~~and receive~~ sample buffers ~~having a size L1 and a size L2~~ and between said receive sample buffers;

making a determination to switch between said first buffer~~s~~ size~~s~~ L1 and said second buffer size L2 before the activation of said transmitter during a time slice N;

processing ~~a~~ said receive sample buffer having said first buffer size ~~of length~~ L1 and ~~a~~ said transmit sample buffer having said first buffer size ~~of length~~ L1 during a time slice N-1;

processing ~~a~~ said receive sample buffer having said first buffer size ~~of length~~ L1 and ~~a~~ said transmit sample buffer having said second buffer size ~~of length~~ L2 during said time slice N;

processing ~~a~~ said receive sample buffer having said first buffer size ~~of length~~ L1 and ~~a~~ said transmit sample buffer having said second buffer size ~~of length~~ L2 during a time slice N+1; and

processing ~~a~~ said receive sample buffer having said second buffer size ~~of length~~ L2 and ~~a~~ said transmit sample buffer having said second buffer size ~~of length~~ L2 during a time slice N+2 and during time slices thereafter until ~~such decision to switch buffer sizes~~ deciding to switch between said first buffer size L1 and said second buffer size L2.

Claim 14 (Original): The method of claim 13, wherein the size of said transmit and receive sample buffers is coherently switched without any loss of data.

Claim 15 (Currently Amended): A system for achieving a balance between response time and system latency in a communication system, said system comprising:

sample buffers having a first buffer size capable of quick response times;

sample buffers having a second buffer size capable of accommodating system latency; and

a switching device capable of dynamically switching between the use of said sample buffers having ~~a~~ said first buffer size and said sample buffers having ~~a~~ said second buffer size.

Claim 16 (Original): The system of claim 15, wherein said second buffer size is robust so as to accommodate system latency.

Claim 17 (Original): The system of claim 15, wherein said sample buffers are maintained in a memory.

Claim 18 (Original): The system of claim 15, wherein said sample buffers are maintained in physical buffers.

Claim 19 (Original): The system of claim 15, wherein said dynamic switching is performed in response to communication system operating requirements.

Claim 20 (Original): The system of claim 15, wherein said system latency comprises interrupt latency.

Claim 21 (Original): The system of claim 15, wherein said system latency comprises bus latency.

Claim 22 (Original): The system of claim 15, wherein said system latency comprises both interrupt latency and bus latency.

Claim 23 (Original): The system of claim 15, wherein the size of said sample buffers is coherently switched without any loss of data.

Claim 24 (Original): The system of claim 15, wherein said second buffer size is greater than said first buffer size.

Claim 25 (Currently Amended): The system of claim 15, wherein the size of said sample buffers is switched to said first buffer size when a modem connection is reinitialized or restarted.

Claim 26 (Currently Amended): The system of claim 15, wherein the size of said sample buffers is switched to said first buffer size when a retrain sequence has been initialized,

wherein said communication system implements an International Telecommunication Union standard chosen from the group of V.32, V.32bis and V.34.

Claim 27 (Currently Amended): A system for achieving a balance between response time and system latency in a communication system, said system comprising ~~of the steps of~~:

sample buffers having a first buffer size capable of quick response times;

sample buffers having a second buffer size that is robust so as to accommodate system latency; and

a switching device capable of dynamically switching between the use of said sample buffers having ~~a~~ said first buffer size and said sample buffers having ~~a~~ said second buffer size.

Claim 28 (Original): A system for achieving a balance between response time and system latency in a communication system, said system comprising:

a sample buffer that is variable in size, wherein the sample buffer has a first buffer size capable of quick response times and a second buffer size capable of accommodating system latency; and

a switching device capable of dynamically switching between said first buffer size and said second buffer size of the sample buffer.

Claim 29 (Currently Amended): A machine readable medium containing executable instructions which, when executed by a machine, causes the machine to perform the steps of a method for achieving a balance between response time and system latency in a communication system, the method comprising:

employing sample buffers having a first buffer size capable of quick response times;

employing sample buffers having a second buffer size capable of accommodating system latency; and

dynamically switching between the use of said sample buffers having ~~a~~ said first buffer size and said sample buffers having ~~a~~ said second buffer size.

Claim 30 (Original): The medium of claim 29, wherein said second buffer size is robust so as to accommodate system latency.

Claim 31 (Original): The medium of claim 29, wherein said dynamic switching is performed in response to communication system operating requirements.

Claim 32 (Original): The medium of claim 29, wherein said system latency comprises interrupt latency.

Claim 33 (Original): The medium of claim 29, wherein said system latency comprises bus latency.

Claim 34 (Original): The medium of claim 29, wherein said system latency comprises both interrupt latency and bus latency.

Claim 35 (Original): The medium of claim 29, wherein the size of said sample buffers is coherently switched without any loss of data.

Claim 36 (Original): The medium of claim 29, wherein said second buffer size is greater than said first buffer size.

Claim 37 (Currently Amended): The medium of claim 29, wherein the size of said sample buffers is switched to said first buffer size when a modem connection is reinitialized or restarted.

Claim 38 (Currently Amended): The medium of claim 29, wherein the size of said sample buffers is switched to said first buffer size when a retrain sequence has been initialized, wherein said communication system implements an International Telecommunication Union standard chosen from the group of V.32, V.32bis and V.34.

Claim 39 (Currently Amended): A machine readable medium containing executable instructions which, when executed by a machine, causes the machine to perform the steps of a method for achieving a balance between response time and system latency in a communication system, the method comprising:

employing sample buffers having a first buffer size capable of quick response times;

employing sample buffers having a second buffer size that is robust so as to accommodate system latency in said communication system; and

employing a switching device capable of dynamically switching between the use of said sample buffers having ~~a~~ said first buffer size and said sample buffers having ~~a~~ said second buffer size.

Claim 40 (Original): A machine readable medium containing executable instructions which, when executed by a machine, causes the machine to perform the steps of a method for achieving a balance between response time and system latency in a communication system, the method comprising:

employing a sample buffer that is variable in size, wherein said sample buffer has a first buffer size capable of quick response times and a second buffer size capable of accommodating system latency; and

employing a switching device capable of dynamically switching between said first buffer size and said second buffer size of said sample buffer.

Claim 41(Currently Amended): A method of achieving a balance between response time and system latency in a communication system, said method comprising:

employing sample buffers having a first buffer size capable of quick response times;

employing sample buffers having a second buffer size capable of accommodating system latency; and

employing a switching device capable of dynamically switching between said sample buffers having ~~a~~ said first buffer size and said sample buffers having ~~a~~ said second buffer size.

Claim 42 (Original): The method of claim 41, wherein said second buffer size is robust so as to accommodate system latency.

Claim 43 (Original): The method of claim 41, wherein said dynamic switching is performed in response to communication system operating requirements.

Claim 44 (Original): The method of claim 41, wherein said system latency comprises interrupt latency.

Claim 45 (Original): The method of claim 41, wherein said system latency comprises bus latency.

Claim 46 (Original): The method of claim 41, wherein said system latency comprises both interrupt latency and bus latency.

Claim 47 (Original): The method of claim 41, wherein the size of said sample buffers is coherently switched without any loss of data.

Claim 48 (Original): The method of claim 41, wherein said second buffer size is greater than said first buffer size.

Claim 49 (Currently Amended): The method of claim 41, wherein the size of said sample buffers is switched to said first buffer size when a modem connection is reinitialized or restarted.

Claim 50 (Currently Amended): The method of claim 41, wherein the size of said sample buffers is switched to said first buffer size when a retrain sequence has been initialized, wherein said communication system implements an International Telecommunication Union standard chosen from the group of V.32, V.32bis and V.34.

Claim 51(Currently Amended): A method of achieving a balance between response time and system latency in a communication system, said method comprising:

employing sample buffers having a first buffer size capable of quick response times;

employing sample buffers having a second buffer that is robust so as to accommodate system latency in said communication system; and

employing a switching device capable of dynamically switching between said sample buffers having ~~a~~ said first buffer size and said sample buffers having ~~a~~ said second buffer size.

Claim 52 (Currently Amended): A method of achieving a balance between response time and system latency in a communication system, said method comprising:

employing a sample buffer that is variable in size, wherein said sample buffer has a first buffer size capable of quick response times and a second buffer size capable of accommodating system latency; and

employing a switching device capable of dynamically switching between said ~~buffers having a~~ first buffer size and said ~~buffers having a~~ second buffer size of said sample buffer.

Claim 53 (New): A modem capable of performing a start-up procedure with a remote device before entering a data phase for exchanging data with said remote device, said start-up procedure having a first start-up sequence and a second start-up sequence, said modem comprising:

a sample buffer having a first buffer size for use during said first start-up sequence;

a sample buffer having a second buffer size for use during said first start-up sequence, wherein said second buffer size is greater than said first buffer size; and

a switching device capable of switching from said sample buffer having said first buffer size to said sample buffers having said second buffer size based on a transition in said start-up procedure from said first start-up sequence to said second start-up sequence.

Claim 54 (New): The modem of claim 53, wherein said modem achieves a balance between response time and system latency in a communication system by switching from said sample buffer having said first buffer size to said sample buffers having said second buffer size.

Claim 55 (New): The modem of claim 53, wherein said first start-up sequence is an initial start-up sequence of said start-up procedure.

Claim 56 (New): The modem of claim 55, wherein said start-up procedure is performed according to the International Telecommunication Union V.32bis standard, and said initial start-up sequence includes the ranging phase of said V.32bis standard.

Claim 57 (New): A method for use by a modem to perform a start-up procedure with a remote device before entering a data phase for exchanging data with said remote device, said start-up procedure having a first start-up sequence and a second start-up sequence, said method comprising:

employing a sample buffer having a first buffer size for use during said first start-up sequence;

employing a sample buffer having a second buffer size for use during said first start-up sequence, wherein said second buffer size is greater than said first buffer size; and

switching from said sample buffer having said first buffer size to said sample buffers having said second buffer size based on a transition in said start-up procedure from said first start-up sequence to said second start-up sequence.

Claim 58 (New): The method of claim 57, wherein said switching achieves a balance between response time and system latency in a communication system.

Claim 59 (New): The method of claim 57, wherein said first start-up sequence is an initial start-up sequence of said start-up procedure.

Claim 60 (New): The method of claim 59, wherein said start-up procedure is performed according to the International Telecommunication Union V.32bis standard, and said initial start-up sequence includes the ranging phase of said V.32bis standard.